

A REVIEW OF THE GENUS *TURACOECA* WITH DESCRIPTION
OF A NEW SPECIES
(MALLOPHAGA: MENOPONIDAE)¹

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The genus *Turacoea* Thompson, 1938, includes three species of lice (Hopkins and Clay, 1952), these restricted in their known distribution to the plantain eaters (Cuculiformes: Musophagidae). Thompson (1938) placed two of these three species within *Turacoea* and discussed them. It is my purpose here to expand upon these descriptions, to characterize the third species, and to describe a new species. I thank Dr. Theresa Clay, British Museum (Natural History), and Dr. K. C. Emerson, Arlington, Virginia, for their assistance in this study.

***Turacoea scleroderma* (Ewing)**

(Figs. 1, 5, 6)

Colpocephalum scleroderma Ewing, 1930, Proc. Biol. Soc. Wash. 43:127. Type-host: "Plaintan eater"—*Musophaga rossae* Gould, but probably *Corythaeca cristata* (Vieillot).

Female. As in fig. 5. Head with 1 pair of minute middorsal setae, both pairs of occipital setae minute, 2 very long marginal temple setae on each side, and subocular comb row with 2-3 longer setae immediately preceding it. Pronotum marginally with 8 long, 8-9 short setae; prosternal plate weakly developed, without longer setae. Metanotum marginally with 10-12 setae, medioanteriorly without setae, but with up to 2 or so microalveoli; mesosternal plate with 2 setae, metasternal plate, 4-5. Each femur III ventrally with 3-4 comb rows of short spiniform setae. Abdominal tergite I much longer than any of II-VIII; tergites II-VI pale medially, but not clearly divided. Total marginal abdominal tergal setae, including very long postspiracular setae on each segment: I, 14-15; II, 23-26; III-V, 28-35; VI, 27-31; VII, 23-28; VIII, 18-20; without anterior setae. Last tergite with 2 very long setae on each side, preceded by a stouter shorter seta, and with 11-14 minute to medium inner posterior setae. Abdominal pleura essentially with only marginal setae. Abdominal sternite II longer than others; sternites III-V each with single comb row on each side; sternites VII-IX fused (vulva). Sternal setae: I, 7-9; II-III, 6-8; IV-V, 7-11; VI, 15-19; VII, 20-21. Vulval margin flatly rounded, with 24-30 setae; with 26-35 setae anteriorly on VIII-IX. Anus close to that of fig. 3, with ventral fringe of 15-17 setae, including 2 stout longer setae at each corner, and dorsal fringe of 24-26 setae; without inner setae. Without evident internal structure of genital chamber.

Male. As in fig. 1. Head and thorax essentially as for those of ♀. Abdominal tergite I longer than II-VIII; tergites evenly pigmented, without evidence of division. Marginal tergal setae, including very long postspiracular setae on each segment: I, 14; II, 18-19; III, 22-30; IV-VI, 24-28; VII, 20-22; VIII, 15-18;

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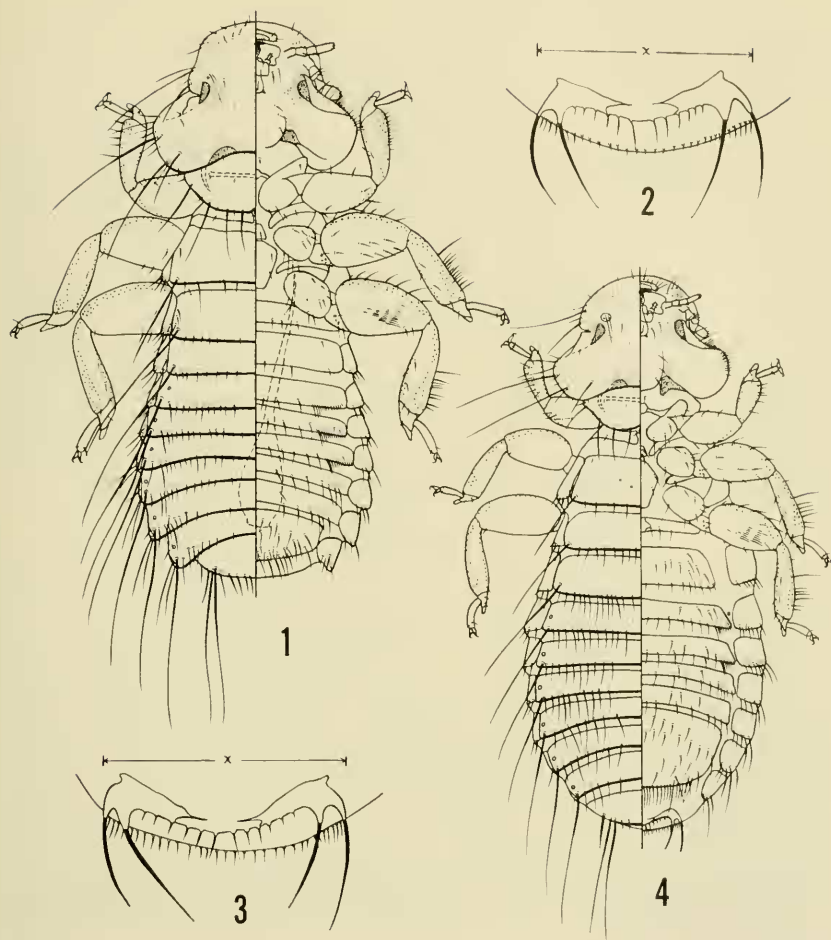


Fig. 1, *Turacoeca scleroderma* (Ewing), male. Fig. 2, *T. subrotunda* (Giebel), female anus. Figs. 3-4, *T. bedfordi* Thompson: 3, female anus; 4, female.

without anterior setae. Chaetotaxy of last tergite as for ♀, except for longer inner posterior setae. Abdominal sternites I-VII close to those of ♀. Sternites VIII-IX fused (genital plate), VIII with 17-19 setae, IX with 9-10 marginal, 7-13 anterior setae. Genitalia as in fig. 6, with slender tapered basal apodeme, with genital sclerite having lateroposterior projections and slightly shorter medioposterior process, with unbarbed penis, with endomeral plate constricted apically, and without apparent parameres.

Dimensions (in mm): preocular width, ♀ 0.42-0.45, ♂ 0.39-0.40; temple width, ♀ 0.65-0.66, ♂ 0.61-0.62; head length, ♀ 0.39-0.41, ♂ 0.39-0.40; prothorax width, ♀ 0.45-0.46, ♂ 0.41-0.43; metathorax width, ♀ 0.71-0.76, ♂ 0.55-0.60;

total length, ♀ 1.88–1.99, ♂ 1.62–1.70; ♂ genitalia, length 0.75–0.80, width 0.12–0.13.

Material Examined: 1 ♂ (holotype of *C. scleroderma* Ewing), "Plantain eater," Belgian Congo; 5 ♀ ♀, 10 ♂ ♂, *Corythacola cristata*, Uganda (3 collections).

The true type-host of *T. scleroderma* has been questioned (Thompson, 1938; Hopkins, 1942). The slide with the holotype shows the host only as "Off Plantain eater," this being in ink in the same writing as the rest of the collection data; in light pencil at a corner is written "*Musophaga*." Ewing (1930) gave the type-host as *Musophaga rossae*, without explaining the basis for this identification and without entering this on the slide label. Subsequent collections have shown this holotype ♂ to be conspecific with lice from *C. cristata*, another plantain eater common in the Ituri Forest where the host of Ewing's specimen was taken (Hopkins, 1942). Other specimens from *Musophaga* have proven to be another *Turacoeca* species quite different from *T. scleroderma*. It would seem most probable that *M. rossae* is an incorrect identification or incorrect statement of the host.

Turacoeca bedfordi Thompson

(Figs. 3, 4, 7)

Turacoeca bedfordi Thompson, 1938, Ann. Mag. Nat. Hist. (Ser. 11) 2:353.

Type-host: *Gymnoschizorhis leopoldi centralis* Neumann.

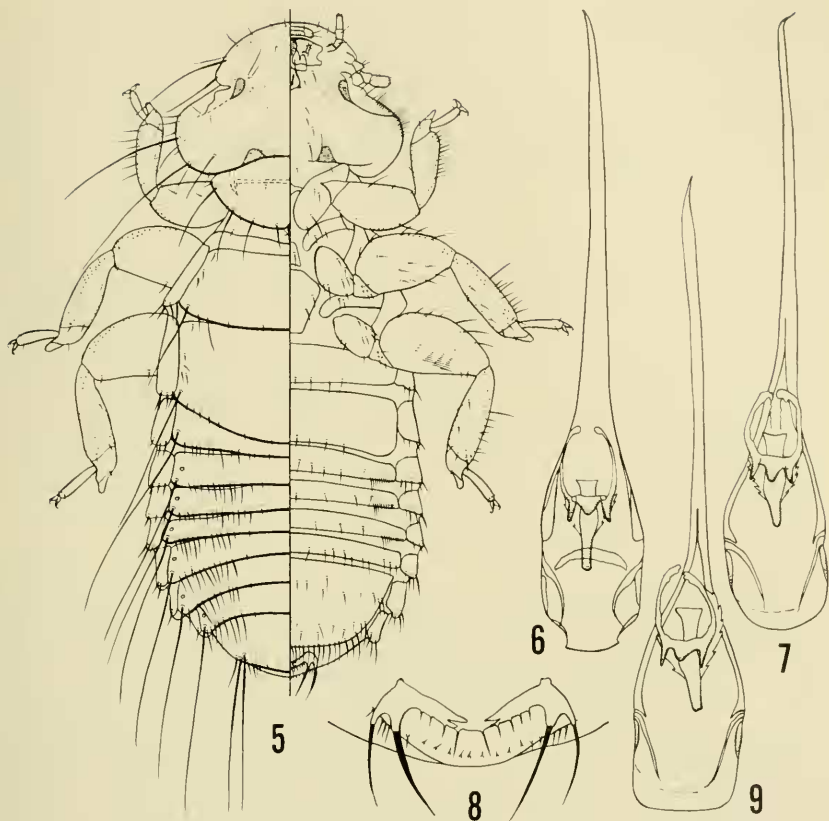
Female. As in fig. 4. Differs from *T. scleroderma* as follows. Prosternal plate more developed, but still without longer setae. Mesosternal plate with 3 setae. Each femur III ventrally with only 2, less often 3, comb rows. Abdominal tergites I–II somewhat longer than III–VIII, but I not pronouncedly longer as with *T. scleroderma*; tergites uniformly pigmented. Marginal tergal setae, including very long postspiracular setae on each segment: I, 18–19; II, 28–30; III–IV, 22–25; V, 18–22; VI, 17–18; VII, 15–16; VIII, 14. Last tergite with only 4 short inner posterior setae. Only sternites III–IV with single comb row on each side. More sternal setae: I, 6; II, 36–40; III–VII, 17–27. Anus as in fig. 3, with 15–16 setae in ventral fringe, 32–37 in dorsal fringe; those in dorsal fringe comparatively long, with bases at posterior margin; width of anus (fig. 3: x), 0.27 mm. Smaller dimensions.

Male. Essentially as for ♀ of *T. bedfordi*, except for ventral terminalia, genitalia, and even smaller size, thereby differing from ♂ of *T. scleroderma* in many of same ways as above. Mesosternal plate with only 1 seta. Genital plate much as for that of *T. scleroderma* (fig. 1). Genitalia as in fig. 7, with evenly rounded endomeral plate.

Dimensions (in mm): preocular width, ♀ 0.38–0.39, ♂ 0.36; temple width, ♀ 0.55–0.57, ♂ 0.52; head length, ♀ 0.34, ♂ 0.35; prothorax width, ♀ 0.37, ♂ 0.33; metathorax width, ♀ 0.55–0.59, ♂ 0.46; total length, ♀ 1.76–1.78, ♂ 1.46; ♂ genitalia, length 0.61, width 0.10.

Material Examined: 2 ♀ ♀, 1 ♂ (paratypes of *T. bedfordi* Thompson), *Gymnoschizorhis leopoldi centralis*, Uganda.

This species is readily separable from *T. scleroderma* by a number of features, including absence of comb row on sternite V, more



Figs. 5-6, *Turacoeca scleroderma* (Ewing): 5, female; 6, male genitalia. Fig. 7, *T. bedfordi* Thompson, male genitalia. Figs. 8-9, *T. leucotis*, n. sp.: 8, female anus; 9, male genitalia.

reduced abdominal tergite I of ♀, more sternal setae for both ♀ and ♂, and different shape of endomeral plate of ♂ genitalia. Thompson (1938), in stating "I have been unable to find any differences in the male genitalia," apparently placed no significance on the shape of the endomeral plate. However, I have found this to be a good feature for separation.

***Turacoeca subrotunda* (Giebel)**

(Fig. 2)

Colpocephalum subrotundum Giebel, 1874, *Insecta Epizoa*, p. 266. Type-host: *Musophaga violacea* Isert.

Female. Specimens from type-host as follows, with values in parentheses representing those of other material when different. Very close to *T. bedfordi* (fig. 4).

Mesosternal plate with 2 longer setae. Fewer marginal abdominal tergal setae: I, 17 (12-13); II, 24 (21); III, 20 (15-19); IV, 20 (16-20); V, 17 (15-17); VI, 16 (14); VII, 12-14; VIII, 10 (10-11). Shorter postspiracular setae on tergite IV, occasionally on V. Sternal setae: I, 8; II, 35 (32-33); III-IV, 19 (16-23); V, 24 (24-27); VI, 22 (22-25); VII, 23 (20-21). Anus as in fig. 2, with dorsal fringe of 33-37 (28-32) setae, medially shorter and with bases submarginal; narrower anus (fig. 2: x), 0.23 mm. Consistently smaller size.

Male. No available material from type-host, but specimen from *Tauraco livingstonii schalowi* (Reichenow) tentatively considered to represent *T. subrotunda*, with characters as follows. Very close to *T. bedfordi*. Fewer marginal abdominal tergal setae, as for ♀; postspiracular setae broken off. Fewer sternal setae on: III-IV, 15; V, 17; VI, 19; VII, 15; VIII, 16. Genitalia apparently as for *T. bedfordi* (fig. 7). Consistently smaller size.

Dimensions (in mm): preocular width, ♀ 0.32-0.34, ♂ 0.32; temple width, ♀ 0.47-0.48, ♂ 0.42; head length, ♀ 0.31-0.32, ♂ 0.32; prothorax width, ♀ 0.32, ♂ 0.29; metathorax width, ♀ 0.45-0.46, ♂ 0.36; total length, ♀ 1.42-1.51, ♂ 1.08 (telescoped); ♂ genitalia, length 0.56, width 0.10.

Material Examined: 2 ♀♀ (including 1 paratype of *T. bedfordi* Thompson), *Musophaga v. rossae* Gould, Uganda (2 collections); 1 ♀ (paratype of *T. bedfordi*), *Ruwenzorornis j. johnstoni* (Sharpe), Uganda; 2 ♀♀, 1 ♂, *Tauraco livingstonii schalowi*, Tanganyika (1 collection).

Thompson (1938), while listing *Colpocephalum subrotundum* among the musophagid lice, gave no further description of it. Hopkins (1942) stated that *C. subrotundum* almost certainly belongs to *Turacoeca*, but he raised the possibility that *M. violacea* might not be the correct host. On the basis of specimens I have examined, I see no reason for not considering *T. subrotundum* a species distinct from *T. bedfordi* and *M. violacea* as the correct type-host. Thompson had included material from *M. violacea* and *R. johnstoni* within his paratype series of *T. bedfordi*; however, I find that the reduced number of marginal abdominal tergal setae, the smaller size, the shorter postspiracular setae on IV at least for the ♀, the features of the ♀ anus, and fewer abdominal sternal setae of the ♂ adequate justification for separation from the closely related *T. bedfordi*.

***Turacoeca leucotis*, n. sp.**

(Figs. 8, 9)

Type-host: *Tauraco leucotis* (Rüppell).

Female. Very close to that of *T. subrotunda* in general features of size and chaetotaxy. Only 24 setae on abdominal sternite II. Anus (fig. 8) with only 22 setae in dorsal fringe, short and placed as for *T. subrotunda*, but with only 12 mediad to very long corner ventral fringe setae, instead of 19-24 in this position as for *T. subrotunda*.

Male. Likewise very close to ♂ from *Tauraco livingstonii* presumed to represent *T. subrotunda*. Differences observed only in the genitalia (fig. 9), with genital sclerite having lateroposterior projections distinctly longer than medio-posterior process and with distal margin of endomeral plate flattened.

Holotype: ♀, *Tauraco leucotis*, Shashamane, Ethiopia, 16.xi.1958, O. Theodor; at British Museum (Natural History).

Paratype: 1 ♂, same data as holotype.

This species is admittedly very close to *T. subrotunda*, but the features of the ♀ anus and ♂ genitalia are believed sufficiently different to justify a species status more than contributing to a broadening of the *T. subrotunda* characterization.

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SELECTION OF LECTOTYPES FOR SOME SPECIES OF EUXOA HÜBNER DESCRIBED BY J. B. SMITH (LEPIDOPTERA: NOCTUIDAE)

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For several years I have been engaged in a study of the type material of noctuid species described by J. B. Smith. He proposed nearly 1,000 names for species in the family. Descriptions of about one-fourth of the species were based on uniques; the remainder require lectotype designations. The study is nearly completed, but preparation of the manuscript still will require considerable time because of the large number of species involved. The present lectotype designations are provided in order that D. F. Hardwick, Entomology Research Institute, Ottawa, Canada, can publish a paper on that section of the genus *Euxoa* Hübner to which the species treated belong. The selection of the lectotype for each name treated herein has been discussed with Hardwick, and he concurs with my selections.

For each name the following information is presented: 1, original combination; 2, reference to original description; 3, pertinent comments from the original description bearing on the number, sex,

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